2014

Interview with Bobby Carson (FA 1098)

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Kentucky Folklife Program
Interview Transcription

Project name: Ranger Lore (LOCRP)
Field ID and name: #0023; Bobby Carson interview
Interviewee: Bobby Carson
Interviewer/Recordist: Brent Björkman
Date: 4/24/2014
Location: Mammoth Cave National Park, KY
Others Present: N/A
Equipment used: Tascam DR-60D
Microphone: Audio-Technica AT803B, lavalier mic
Recording Format: WAV
Recorded Tracks in Session: 1 audio track
Duration: [00:46:40]
Keywords: Radon, air quality, Class 1 airshed, partnerships with universities/other government agencies
Corresponding Materials:
Forms: KFP2014LOCRP_0023_BBms0001 - KFP2014LOCRP_0023_BBms0003
Audio recording: KFP2014LOCRP_0023_BBsr0001
Video files: KFP2014LOCRP_0023_BBmv0001 - KFP2014LOCRP_0023_BBmv0008

Context:
Technical Considerations:
Transcription prepared by: Jennie Boyd

Transcribing Conventions:
Use of square brackets [ ] indicates a note from the transcriber.
Use of parentheses ( ) indicates a conversational aside.
Use of em dash — indicates an interruption of thought or conversation.
Use of ellipses … indicates a discontinued thought.
Use of quotations " " indicates dialogue within conversation.
Use of italics indicates emphasis.
Use of underline indicates movie, magazine, newspaper, or book titles.
Names of interviewee and interviewer are abbreviated by first and last initial letters.
Time is recorded in time elapsed by the convention [hours:minutes:seconds].

Note: This transcription is as accurate and complete as possible. In any question of interpretation, the researcher is referred to the recording itself as the primary document representing this event.
[time elapsed in hours:minutes:seconds]

[00:00:00]

BRENT BJÖRKMAN: Okay, it's April 24, 2014. This is Brent Björkman the Director of the Kentucky Folklife Program, and I'm continuing my work on the Ranger Lore project for the Library of Congress and American Folklife Center, talking to pe-, talking to rangers at Mammoth Cave about their working lives and where they are in their careers and their working life with their, with their coworkers. Could you tell me your, your name and your current title?

BOBBY CARSON: Bobby Carson and I'm the Chief of Science and Resources Management at Mammoth Cave National Park.

BB: Thanks, Bobby. Okay. Well, Bobby, I've been asking people about, you know, how they first, if they had a story about how they first got connected to the job, sometimes it goes further back for people. Sometimes it goes to families and, and being outside. But can you tell me a little bit about how you first got connected to working in, for the Parks Service?

BC: Yes, it, my background goes back, oh, back to my great grandfather, actually back to about 1911. He was a, a teacher, a farmer in Ohio County, which is about seventy-five miles, you know to the, to the west of the park. And he, he made an excursion at that time where, if you think about, it was river traffic to get to, to Bowling Green to catch a train to take a train up to Park City or Glasgow Junction, as it was called at that time. And then to take a train from Park City out to, you know, out to the park. And so he brought all the teachers from Ohio County. And you can kind of imagine that that story and that that journey lasted through generations in my family. So they talked about coming to, coming to Mammoth Cave even at, in, in the early days, before it was even a park. So in those days, there was always a, there was a story about one of the, one of the teachers that came on this trip. And, and I guess this was why maybe this story lasted forever in our family, is he was I guess considered a pontificator, if you will, and was a pretty good talker. And what he had done on that, on that particular trip was, he got the trip that he happened to be on, the cave tour that he happened to be on, delayed. He was talking to the trailing guide so much that they would stop and talk and stop and talk and, and the trip went on ahead of them. And turns

out this particular guide, that he wasn't quite sure what trail to take to get out of the cave. He was fairly new there but, so they ended up, that particular trip got delayed, waiting for the next trip, because what they had to do was just sit down and wait for the next trip to come by. And so their trip, they had to stay an extra day, and, you know, in the cave and eventually got back to, and it was a good, you know, couple days journey to get back to Ohio County at that time. So, so they, that story was told quite often, I know, as a young, young person in the, when I grew up they were still telling that story, you know. I can just remember it. And at that time, we would, and I think my family, my father and mother, they were very interested in national parks, always took us trips out west, you know, to, to visit the major Yellowstone, Grand Canyon and Petrified Forest and those kinds of things. But I also recall, and I think it was about the time, evidently Mission 66 was well underway, you know, in the, in the National Parks Service, from that period, 1956 to 1966.

BB: What was Mission 66?

BC: Well, it was a, it was an effort, obviously from the civilian conservation days where they were developing the national parks. And then we had four camps here at Mammoth Cave to help, you know, develop the cave after it was actually initially brought in in 1941. And so they were, they had built roads and some buildings, and matter of fact this building we're in doing this interview today was built by the Civilian Conservation Corps back in, during that time. It was a kind of maintenance facility. So, they were, there was an effort, nationwide effort, to actually expand, you know, realizing that the automobile was coming into play, people were travelling, roads were improving, that the infrastructure of the parks needed to be improved. And so Mission 66 was that effort to, you know, build hotels, build visitor centers, build roads and, and facilities for, for visitors to come. So I'm almost thinking though about the time that we started coming to Mammoth Cave was dealing with those, you know, construction of the visitors' center. There was a lot of, you know, news media about this. We only lived, my father was a, was a minister in the Cumberland Presbyterian Church. [0:5:00] And so we didn't live too far away from, from Mammoth Cave, although in those times, there weren't, the interstates weren't around. It was a journey to say, come

from Taylor County, which is about seventy miles further to the east, to get here. But we would stop by here and always see what they had. I can remember coming to the, to the hotel right after it opened and the visitor center to see the exhibits and my mother was deathly afraid of caves, didn't think anyone should go underground like that. But you know, I thought otherwise and we, you know, we'd take cave tours. So I had an interest there. But when I went to college, I, my background was in geography, geology with a heavy interest in meteorology. My grandfather was a cooperative weather observer for the, you know, for the, for the county of Ohio County. Him and his father, my grandfather, great grandfather, had been cooperative observers for sixty-five years and would take daily weather observations and all those, these, precipitation, temperature, and submit that. So I just was fascinated, you know, watching them, you know, measure rain, rainwater, check the temperature every day and report it. And so when I first went into the, to college, I, my interest was in meteorology and I studied that. And so my very first job, coming out of college was actually with the National Weather Service. I was a weather, I was a weather communications specialist and so my job was to get, was to actually present weather over a, you know, to, they wanted people with Kentucky accents to talk to Kentuckians, which was a huge mistake because even, even a Kentuckian has a, has a difficult time pronouncing cities and, and locations within the state that match up with a, with a local, you know, dialect. Where its "CAY-ro" or "KI-ro," Illinois or, you know, those kinds of things. But anyway, they hired us, so I went to work there. And so from that point, I had, but I still had this interest in working for the, with the park service. It was a job, this particular job I had, was pretty much funded by the state of Kentucky in a combination with the National Weather Service. And it was a swing shift type of job where you had to, you worked a days one week, afternoons the next week, and then midnights the next week, and I realized right then, maybe, maybe the weather service wasn't my, you know, cup of tea. So I applied for a job, a permanent position with the, it was open at Mammoth Cave, and wow, you know, that brought back a lot of childhood memories of coming to the, to the park. And so I put in for it. It was for a physical science technician position. They were, someone had actually discovered the presence of radon gas inside Mammoth Cave and they needed someone to take that, take that job. Turns out I think I was the only applicant for the job. I, my stature is

only five foot eight and I, I recall driving down. I applied for the job with the, through the Civil Service System and got a call from Doyle Klein who was the deputy superintendent at the, at Mammoth Cave at that time, in 1976, in September of 1976. And he said, "Come down for an interview." And I was pretty excited about that. So I drove down and we, he met with me and I, and I remember Doyle was about six foot five, and he looked at me, he first looked at me and said, "You'll fit in well here." You know, mainly, and I didn't understand what he was talking about until after I had a chance to start touring the caves a little more in depth. That when you're six foot five versus five foot eight, you can make your way through the caves a little bit simpler. You know, he, he said he lost a many of his flat hats to, to rock ledges. So that, so that was my first, first position. So I started here, as I was saying, from 1976 and stayed in that position as a physical science technician until, up until 1989. Now during that period, that was the, that was a period where we were lots of things were going on with radon gas being, it was initially found up in the Redding prong of Pennsylvania. At that time, we were doing this nationwide survey of, of cave parks to try to find out, you know, the presence or absence of radon in caves. So my job was to actually just to, just assemble that, that data. And we were looking at all kinds of things. We were doing lots of research, in terms of trying to understand what levels existed in, underground. What levels happened in some cases buildings and structures. We had a little bit of unique situation here. [0:10:00] In the mid-1960s, where a, a unique ventilation system had been developed for Mammoth Cave. They had drilled a hole, a shaft down to the, to the cave to actually pull cave air up into the visitors' center and administrative offices to air condition them. Well, unfortunately, inside that air, was, there was radon. So we were actually exposing most of the office staff and visitors to. Not only were they getting radon exposure down in the cave, you were getting it up in the, in the visitors' center and offices, so we closed that off. We had to shut that down in 19-, in the summer of, July of 1976, just prior to when I arrived in October 11, 1976. So we had, anyway they had cut down, you know, they, they'd sealed that up, they had, you know, tried to do some other mitigating factors, but primarily my job was just to monitor every cave trail that we had, we had people going into. So that meant not only park guides, park maintenance staff. We had a very, you know, relatively large staff back in those days.

BB: Different from today?

BC: Yeah, be-, a lot different from today. We had entire cave maintenance crews that would just stay underground. So they, they had to maintain the bathrooms, the ki-, you know, pick the tr-, pick the garbage up off the trails, keep everything clean, keep potholes cut down. So they had staff that just roamed the caves. They would go in at seven in the morning and they'd come out at, at four. We don't do that today. We don't have that kind of staff any longer. We had a lot more seasonal staff in those days. We really didn't think about it in terms of interpretation. We didn't think about having limits on the number of people on a tour, so if you had enough to go on a tour, it went. So you could, you could have a lot, lot of historic tours, because, you know, just as they filled up, you've got one, two hundred people, you send a trip off. So there was just this constant cycle of trips coming and going. So we had over a hundred seasonal staff underground in addition to some per-, you know, permanent staff that were guides throughout the year. So there was a major paperwork exercise in trying to understand, get the, you know, get the concentrations of radon in the cave, assemble all the exposure, all the hours of exposure and then both from maintenance and, and interpretation. As a matter of fact, my exposure (laughs) was right up there with some of the highest exposures just because I was monitoring the radon. I was down there most every day, all day, just doing, doing radon measurements. And we were also doing research, trying to look at caves that were off the main cave, you know. We were looking at the outlying caves as well, trying to, again, research and understand the radon issue. Of course, found it, found it in every cave we, we have, different levels, so. So that was—and then in the mid-, by the mid-1980s, I had migrated, you know, there was a huge, a bigger effort and looking at it in, in, in surface areas, on, in buildings, and I mentioned earlier that the Redding prong of Eastern Pennsylvania where they, they found some major radon in, in, in homes. And that led to a park service effort to actually measure—so that's what I did. I did a little bit of that. And not just here. We were fortunate that this sandstone cap that covers Mammoth Cave also prevents having the, the soils above it are a little bit minimal in the amount of radium and uranium that's in it. So we don't have buildings here outside of

the ones that were attached to that ventilation shaft pulling air from the cave up. It was quite low. So I spent a lot of time travelling the southeast. I worked in places like Everglades and Great Smokies and, and working on mitigating buildings and houses and structures on radon exposure trying to reduce those.

BB: Um-hm.

BC: By 1989, I had an opportunity, there was a job by application for an air quality specialist with the Air Resources Division—it was called the Air Quality Division at that time, but the Air Resources Division later—in, in Denver. It was a Washington level job and they wanted, they needed some people with, you know, background in air quality monitoring, meteorological measurements and I thought, you know, that, that really fit into what little bit of my early years of doing, working with meteorology and one, and enjoying the study of meteorology.

BB: So it had been a very, would it have been a step up or a—

BC: Yes, and it was a grade, it was a grade increase, matter of fact it was a, in the GS scales, where, when I first entered here, GS4, it went to a GS5, it went to a GS7. And this was a GS9, GS11, GS12. And they just tore, it was kind of a training type position. So from, from Denver in the six years I was there, I went from a GS9 to a GS12, [0:15:00] staying as a what they call a monitoring specialist. Which was quite fascinating. I got a chance to travel around the country. I mean, I was spending most of my time on the road, in the air if you will too, traveling. We had forty-two parks. These are parks that are considered Class 1 Airsheds, which these are what Mammoth Cave is as well, too. It's the only Class1 Airshed in the state of Kentucky.

BB: What is it? What does that mean?

BC: Well, it's under the Clean Air Act, they established national, in any federal lands in excess of, especially parks service lands, that were in excess of 6000 acres, and they exceeded, they had an national park designation to the end of their name. Under the Clean Air Act that was passed in 1970 and amended in 1977, they established that piece that deals with national parks and public lands, federal fish and wildlife service areas, forest service areas. That, that Class 1 designation meant you had the most pristine air in the country, made it, it provided the greatest protection against the degradation from air pollution. So you would expect air to be clean in these Class 1 areas. And so the next question, after 1977 was, well, what are the levels of air quality in these Class 1 areas? And nobody knew. There was really no monitoring going on here. Everything was population based, so, you know, why monitor in a place that has few people. And so the, the, the Clean Air Act sort of dictated the, allowed us the opportunity to get funding to actually monitor what it is. So our focus has been all along, has been on, is air quality impacts on the resource and not air quality impacts to, to, to the population. We leave that to the state of Kentucky, the EPA and other agencies like that. So our role is what is air pollution doing, you know, to national parks in net terms of, you know, when you go to a view shed, you would like to be able to see some distance, and you'd like to be able to see that, all these trees are green or this, there is a river down there or a, you know, something of some feature that you want to see, whether you're at the Grand Canyon or you're at the Great Smokies, or even you're, if you're at Mammoth Cave. We don't have those tremendous viewsheds here, but we do still have some beautiful valleys, and, and, and if you go back in to look at the reason the park was established, so those are enab-, enabling legislations if you will. Most of they time, they, that's what you go back to, to try to find out what is the importance of this particular park. And the hilly country and the scenic river valley was one of the elements, the criteria for this park being established in addition, obviously, to the cave, but, the length of the cave and the size of the cave and just the cave itself. So that's the nexus, you know, for, for air quality protection in parks. So, so from that we had, you know, so Mammoth was one of the parks, Smokies—so I travel across the country to the Arches, you know, all of these Class 1 airsheds, you know, we, that we had. In some cases even Class 2 airsheds, which are, are something a little bit less, these are parks in urban areas, maybe,

you know, those kinds of things. Indiana Dunes comes to mind. They weren't quite Class 1 areas, but they were, they do have, they did deserve some, some air quality protection or we had some special funding. So I travel and I do, spend a week at the station calibrating all the instrumentation, making sure that it, it met. We did that twice a year. And so I got out of, I was in the airports just around the country. But it was nice airports, you know, Hilo was not too bad in Hawaii. And but then you were in Denali, you know, for a little while, in Alaska, or you went to Acadia or you went to the Virgin Islands, Everglades. So you were crisscrossing the country, time zone to time zone—

BB: Do you have any family? Did you have a family at the time?

BC: Yes, we were, my wife and I, who met at Mammoth Cave, we met here, married in 1979, so in, in '89 we had one, one child, but by the time we left Denver in 1994, we had three children altogether. So we moved back, so after that experience, I applied for a, that's my first experience coming back to Mammoth Cave was because Vicky, my wife, applied for a public information specialist job here and, and then we, I came back here actually on a detail assignment with, and I worked out of, based out of Mammoth Cave. I was doing air quality, the coordinator duties for the southeast regional office. So I was kind of positioned here and then working for a little bit of the entire region. The coordinator duties were more to the level of looking at permit activity, what types of monitoring are going on. You, you're a little more in a, just like I say, a coordinator role and not more of a, an action/operational [0:20:00] kind of a role that you might have if you're at a, at a park. By about 1996, I took on a, the, we decided that Mammoth Cave did not have a, the staff here to do some air quality, some critical air quality mon-, monitoring that we needed to do in response, in response to some national efforts to look at visibility issues, ozone issues, air pollution effects. And so superintendent of the park here, which was Ron Switzer, decided he wanted to, we needed to have an air quality specialist here, so we worked out an arrangement where I would actually, actually be stationed at Mammoth Cave. And so about 1996, I, that started, and I've been here, I stayed the air quality specialist up until about 19-, or 2-, 2010, excuse me. And then our chief of, of, for sci-, Science and Resource Management retired and

I went into an acting role, Acting Chief of Science and Resource Management until 2012 and then applied for the Chief job and it, got the, got the position that, that I hold today. So that's been my, been my role, you know, in the parks service over the last, now 38 years, so.

BB: Yeah. Wow, it's changed. It's evolved in seems like a very symbiotic kind of, kind of way.

BC: Well, I, I always laugh. I've probably had one of the few jobs, except this one now as chief, that I was monitoring things you couldn't see, smell, hear or taste. Not many people, (laughs) people who could say I spend my life working with radon or, or some, you know, some physical component of, of, of air quality, of air, if you will. Either, either meteorology or, or some function or some component of air, so.

BB: Who's your, who would be your team in the science division? Is it like, how many? I mean, how, and then how are you interacting with interpretation and law enforcement, all the people I'm getting to know?

BC: Sure. Well, the way we're structured, you know, we have an interpretation division, a maintenance division, and a, the science and resource management division is kind of interesting. Of course, it was born in about 1989 is when the division really came into formation. At that time, resource management was performed in the ranger division at this park and really only had one position that was really identified as a kind of collaborative, collaborative, collateral duty type of position. So he was a district ranger, a north district ranger and a resource management specialist. From there they, there was a period of time where we also brought some people on—and a lot of this was due to radon. We actually needed to have, we needed to get people out of the cave. Their exposures were so high. And so we tried this kind of a split program if you will where they would spend, the permanent staff would spend three months, you know, in a cave, or four months in the cave, and then four months on resource management, and then four months maybe doing some law enforcement kinds of activities. It might be just checking gates, cave gates and other things. And from that, it worked pretty well for a while, but then a superintendent, David

Mullhollock come in here in the mid-, well about 1988, and he wanted to form a resource management division which is what he did. Now that included both natural and cultural resources. So we had, which is a major divide here some, in some, sometimes where you're trying to look at, you know, protecting natural resources but at the same time you've got, you know, cultural resources that are on the ground that also deserve that same protection. Sometimes there's conflicts. And we have that, so my interaction as head of that division is also with the, many things, you know. You might be looking at ecology, you might be looking at hydrology, you know there's, it goes into plants, so you might have botanists, you know, exotic species that are invading the park. All these things are, are, are here and we have staff to work through those kinds of things. We also have a cultural side that we have to be very cognizant of. So the, this building that we're in today is a CCC structure so it's eligible for national historic registrar. So we have to work with maintenance, so when repairs need to be made to these things, there's certain ways you can do this and certain ways you can't, so you have to be very careful about how that's done. We have archaeology, you know, there's rich archaeology here, going back 5000 years, you know, in, in the park itself. But there's also other cultural eras here, you know. The period of time when, you know, we started the mining operations from the 1812, around the War of 1812 period. [0:25:02] So there's artifacts of that landscape. And then once those periods are over, you've got this period where it's a cave tour operation. Operators, there's ho-, there's a hotel here, there's, they're operating cave tours on their own up until the time that the, you know, the park is being thought about. And then you have a Mammoth Cave Operating Committee that sort of managed the park for some period of time. So there's that landscape. Then you had the CCC landscape, all the things they did. Then you had the Mission 66 landscape. And then you had this landscape today. So all these things are kind of have to be considered on the cultural scale.

BB: Historical, cultural meaning both everything you laid out?

BC: Yeah. Everything I laid out.

BB: Historic but also contemporary, modern.

BC: Yes. Exactly. And too, the communities that lived here. You know, this was a, this was an assemblage of many small towns and small farms. So there's churches, over a hundred cemeteries on the park, some of them as small as one or two graves, others much, much larger. So we have that consideration to look at. We have lots of people that were displaced you know, from this park that still live in this surrounding area. Now, they're not, they're, they're descendants of those people in most cases, but at the same time, they remember their parents talking about living here or their grandparents being here. So there's still that local tie. So you got to be sensitive to those kinds of things, you know, when, when people want to come to, to visit a grave or come into, to, to a church or they, three churches we still have here. So that, that's a, it's a balancing act is the way, is the way I, I see we have to do here to, it's man and the landscape, you know. So we have, so we have to, you know, consider when we're either doing some compliance activities. For instance where a project may need to be undertaken you, in a case of like a cave trail project where we want to re-, rehabilitate the entire cave trail that's, it's a challenge because you've got that, that trail was laid down by the Civilian Conservation Corps. So you got to be careful how we preserve that, you know, but yet at the same time, we want to keep that trail where people can safely walk on it and that we keep it, we maintain the integrity of the resources that are just inches off trail that we want to keep that preserved for the enjoyment of future generations. And there's a, so there's a, you know, there's no lack of things to do (laughs) in, in collaboration and coordination too. And interpretation's the same way so, in, in my division as well, one of the other things we need to do is we, we have tremendous amounts of science underway. You know, trying to understand whether it be, you know, the exotic species that may be invading the park, or whether it be bats that are, that are now contracting white nose syndrome. So we have lots of research that's, that's underway. We may have air quality research, we have water quality research, we're trying to understand the hydrology of the, you know, the cave system as it's both inside and outside the park, that may be impacting here. All this information, if it can feed into the interpretation, needs to feed into the interpretation division. So we have a, you know, both a learning center and

environmental education program and interpretation as well as my division as well. We have a component of that, where we try to take that, take that res-, take the research that we, we're learning and, and be able to provide that information to the interpretation division so they can better understand it. And that's both for natural and cultural information. A classic example—

BB: Okay. This thing stops periodically. A classic example?

BC: A classic example of that kind of thing is [ ] tour. There was a, there was an incident where we had a tour of people that was going down an old cave tour trail, like the, it's called Gothic Avenue. Many stone walls that were placed up there. It was a, there was stories that we used to tell that the, the old guides from the 1800s, you know, they would have, they needed to get a cave trail constructed, so it was, it was a neat thing for them to just to tell people, actually they would pay for a cave trip and go in the cave and, and one of your benefits of paying for this cave trip was you, guess what, you may be able to build a monument to your, to yourself or to your organization. Well, that, that helped them get the cave trail developed, you know, cleaned off a little bit of some debris of rock and stuff. So they would stack these rocks up on the, on the trail and see them. A [ ] trip goes past it. They accidentally bumped into a rock and it created a little bit of a rockslide. And out of that, out of that rockslide came a newspaper from 1898 that was from a German community up in Louisville that, and this is information we've since learned from, after we got the paper and had it, and we're trying to have it restored now. [0:30:01] But we'd, through, through some research turns that there were a lot of German immigrants obviously into this part of the country and so there was this 1860s community that, they were German-speaking and they needed a newspaper so they could understand what was going on, so they had this daily paper. And so by the seven-, 1870s, they started, now their children were speaking English, and so they didn't need the German paper so much, but the older folks still did. So they had a weekend kind of edition that went weekly. So this was one of those, at least later, at least mid versions of the Sunday paper that these folks would have. So someone—

BB: It was in between the…

BC: It was in between, just stuffed in one of these little monuments. And so that's the kind of stuff, we now have that piece, so we're studying that and we're going to actually do a little presentation of, some folks we have from our curatorial division. And let them know, let everybody know a little bit about that. So that's the kind of information we'll share with interpretation and it's a great little story for them to, to tell visitors.

BB: Well, you've seen a lot of, a lot of different communities because you've been based in Denver and I think from, you said, from the Virgin Islands to Denali.

BC: Yes. Coast to coast.

BB: And I'm also thinking your, your sentimental tie to here, Ohio County growing up—

BC: Right.

BB: Is, is a, I've also been told by your colleagues that every park they work at has its own characteristics and, and how is this, how might this be different or, you've been explaining the landscape, both cultural and biological and ecological. Is it, does every park have that if you dig deep enough?

BC: I think they do. Every place I would go to, there is a passion about every park. I mean, it's one of those things, I, I, I love it. If you gr-, if you try to go to, to a new park, you don't have to spend a whole lot of time there, but you do spend some time there, and you'll find that the people that, that the National Park Service employees they have there are as passionate about their resource as we, as we are here at Mammoth Cave. You know, we'll go, you could, you could go to training sessions around the country and you'll have four-, thirteen or fourteen parks represented in the, and you'll find that there's just tremendous

amounts of passion about these parks and their, their preservation and, you know, for the enjoyment of the, of future generations that want to come here. And I just think that's just a, that's stuff that you don't just find everywhere else in any other working environment.

BB: The park just, for the park system?

BC: For the park system, yes.

BB: Did it, did it change when we had, we got world heritage status? We, meaning Mammoth Cave?

BC: Um-hm.

BB: But I can't remember what year that was. Was that—

BC: Yeah, that was 1981, I believe we became a world heritage—

BB: So you were here?

BC: Yes. And it was, it was a, I, you know, obviously we have always had a little bit of an international flavor here, you know, at the park. I mean, a matter of fact, if you look at the, at the hotel registers that go back 200 years, you'll see that there has always been sort of an influence of, you know, just foreign, foreign visitation here. I think we in the ca-, at least if you consider, what we consider ourselves in the caving community, there is a, there is a worldwide tie to each other. And you'll find this, I think in, in a lot of just the cave types of parks, Carlsbad or, you know, Mammoth Cave or—if you look at the, the caves of Slovenia and other, other caves across in Europe and other locations, there is this international tie to the caving community. I mean, we've had, we have an organization that, called the Cave Research Foundation, you know, which is, makes up, it's just volunteer folks that work with the, that love to cave. And, and for, for our purposes, we have an agreement for, for their

assistance in helping to map our cave. That's how we know it's, you know, over 400 miles long now is, is from basically their work. But the Cave Research Foundation expands beyond just Mammoth. You know, it's in just every cave system that you can imagine. They try to, they're, they're in, they like to explore caves. That's what they, that's what they do, that's their passion. So I think there's that tie globally, you know, just with, with other cave units, you know. Because we have, may not be the same species of bat but we, you know, we have, we have bats, we have resources to protect inside caves there. There's some have tremendous amounts of formations or, or other things. So we tend to have a lot of cultural artifacts [0:35:00] and not maybe as many formations, but we do have some, some areas of the cave that have lots of formations that are, that are special, you know, in, in those kinds of terms. So I feel like there's that kind of, that kind of tie, you know, to the, to, to world heritage. And I know the world heritage designation, I think, interestingly enough did not include a lot of the cultural issues that you might want to, that you might think, but more towards the, the, the natural, the cave, you know, the cave issues that you might run into so.

BB:I was talking to some law enforcement colleagues of yours about how they've increasingly worked collaboratively with other law enforcement outside of, you know—

BC: Yes.

BB: Themselves. Maybe local sheriffs or it's federal or—

BC: Right.

BB: Federal folks. Being, being helpful on both, both ways.

BC: Um-hm.

BB: And you mentioned the Cave Research Association and you know, how they've added to our knowledge.

BC: Um-hm.

BB: How about other, particularly in your area of science.

BC: Right.

BB: What other kinds of, do you, do you also partner, and is it with Western Kentucky University because it's close or state-wide, or can you elaborate on that?

BC: Yeah. We have, we have lots and lots of, of cooperative agreements that we work because we couldn't do it. We couldn't, we couldn't cover all the areas we need to cover, whether it be archaeology or whether it be trying to understand cave beetles, or, or, or bat species or you know, there's just so much to do that we could not get this done without the help of our partners from either Western Kentucky University the University of Kentucky. We, you could go to, you could just about name a lot, there's been some university tie here for a lot—Murray State, Eastern Kentucky University, especially locally, Vanderbilt has been involved, University of Tennessee. We have called on those partners. A lot of times those partners have called on us for, to let us say we're willing to help, and, or might have a project they have that would be, that is of interest to us. It could be, the, the state has been a huge help, you know, from the standpoint of muscle, diversity and biology, the things we need to, need to study and work on. We have endangered mussels in our, in our river and we could not study those without the, without the assistance of the state of Kentucky and some universities, University of Louisville and other places have been able to help us with that, with that research. And yeah, otherwise, I mean, that's just an extension of our division. I mean, I look at it that way that we're all in this, all in this thing together and it's going to take all of us to pull, you know, to, to understand it and protect it.

BB:I just lost my train of thought.

BC: Well, one other point, I want to say this too, you know, we, we also, you know, just to, you know, one of the things we try to do is obviously is preserve and protect this, this park unit. But we also rely on federal, other federal agencies. I mean, there's a huge amount of, you know, we're not a regulatory agency, you know, we have, you know, somewhat, obviously have some authority over the lands that we administer, and we try to do our best there, but this, this is a global situation, you know, where you're, you know, you either, either be air quality which you're looking at the transport, transport of pollutants that can come from many, many, many miles. It can come, you know, from the Yucatan peninsula, for instance, when they're, when they're burning, you know, the place they do a lot of agricultural burning. We've seen situations where ash is falling out of the sky here. You know, so we're getting the impacts from that volcanic activity explosions. You know, you'll see that. Fire that takes place out on the plains of the US and it makes it all the way to here. We get smoke impacts that, that deal with the increased levels of ozone particulate matter. Other things that we're, we're, that have a, can have an effect upon our, our sensitive resources, whether it be soils or vegetation or waters, you know, those, those kinds of things. So we need great assistance from the Environmental Protection Agency that's the Kentucky, the various Kentucky divisions, air, water, geologic resources. We, we really tie into those guys. Other federal agencies like the USGS, the US Geological Survey, who help us with water quality, measurements, just looking at the river, looking at the streams, the, those kinds of things that we need their help from. The forest, [0:40:00] various forest services, either state, federal, that's helping us with looking at invasive species that may be coming in here. We're looking at emerald ash borers potential impact to our ash trees. So they're helping, we're helping with, with monitoring for, for those kinds of things. Or the wooly adelgid, if you're thinking about the hemlock. We have a very isolated stand of hemlock here in, in the park that's separated from the, the Appalachians. So, you know, we, won't take much to lose that, lose that stand, and if we, if we don't kind of do due, do due vigilance on looking for those species they come across the, the landscape. So there's a lot of, tremendous amount of work, and I, I don't want to, I can't mention everybody, but I mean the work that the University of Kentucky is helping us with on our, our bat research associated with White Nose Syndrome has been, has been huge. They're, they're here, and I

admire all the work they do. They're here in the middle of the night trying to trap bats to look at them, get their, you know, how good, what kind of shape they're in. It's just amazing the, the level of effort and the passion our researchers bring. I think it's equal to the passion we have for this park. And I think that passion is, is out there across the, across the country.

BB: That's great. How about your work in the future? I mean, I'm not sure how long you're—I was talking to Vicky and I can't remember if you have like a retirement plan and how far away that is, but what do you hope your colleagues or the people that are coming after you can, can, can do?

BC: Well, I, and that's been my, I, I view myself, I'm in the, it's hard to, hard to imagine this already because I remember, I can remember my first day like it was last week. I remember the, the, you know, the people you meet and the, and those kinds of things, but I, you know, I'm in the, the twilight, obviously. But one of my goals is I, you want to leave somewhere, you want to leave things in, in better condition than you find them. And that's been my, as I, for the two years I have been chief of Science Resource Management, that's one thing that, you know, we've needed to kind of move toward is some, some planning for the long term. And so I, I view my role as that. I'm trying, you know, establish a, you know, just some, some planning documents that we, where we're looking at trying to understand what are our desired future conditions. What do you want the, you know, the water, the streams to look like? What do you want the trails to look like? What do you want the forest diversity to, to look like? So as part of that I'm spending a lot of my time trying to get natural resource condition assessments. The, you know, we're trying to get that done. We need a cultural resource condition assessment. We're trying to find a, we're working on a foundation document that covers, sort of states like your general management plan, if you will from the, the early years. It sort of tells who you are and, and the, the natural resource condition assessment kind of gives you an idea of where you've come from, what have you studied to this point. But, and then we need to, I want to move towards a resource stewardship strategy which tells us, now where do we take all of this to? You know, and I think it just will help so much in, in our planning. We don't have a cave management plan

and, you know, it's kind of interesting, you think of a park, you know, the cave, the longest cave in the world, we should probably have a cave management plan. About every other cave does. We don't. And so we're, we're mig-, starting those kinds of processes. So I think in these times, they're lean economically, but at the same time it's a great opportunity to plan for what you can do when, when economic conditions improve and, and funding is available. So that's, so I guess I look at myself as trying, we're trying to create a m-, a road map to the fu-, to the future and that's what I hope that someday somebody can look back and they think, what was this guy thinking about. But I hope it shows up in some of that planning.

BB: Great. Do you have any final thoughts?

BC: Well, I, looking back, I often think about those first days, you know. When you're, there's a few things I'm working on. I can remember those first days coming here. We had a, you know, fire, we had a, like a fire control officer and his name was Lloyd Cook. You know, he, when I first, my first day here, he was in his thirty-fifth year, which is about where I'm at today, you know. I'm thirty-eight years, but, or thirty-seven, working on thirty-eight. And I just recall him and I, I, I've thought often, you know, that he, he was, he was a bridge to the beginning of the park. He worked for the CCCs and here I am. And he was giving me all this information, you know, that my goodness, I wish I'd stopped and listened to a little bit more of it, you know, because I realize now [0:45:00] I, I trying to remember what, some of the things Lloyd would tell me about the, or Mr. Cook actually, would tell me about the, what was going on here. Because right now, I would love to have Lloyd standing right next to me so I could ask him, what's, what was this about? Why did this happen? Or why did this, you know, why didn't you do this? You, there's planning documents that say you're going to go this direction and why? And I think about those early days and it was, it was, and then here I am. I'm at that point, I'm at kind of the end of my, my career, but at the same time, I, I just love this park and I love what it's about and the people here. And I'm hoping that, I'm trying to do that same thing with, with, with folks who, they're starting out, you know, they're in their first ni-, trying to do a little, some mentoring and I think we all need to do that. I don't

think we do enough of it. I think we tend to think that, and I think, sometimes you, when you're trying to mentor other people, you, you kind of get that feeling like, here goes this old man going on and on again about something that happened thirty years ago. But trying to instill in that, that it's important that you know where you came from so you can know where you're going to go. And I think that's, that's something I just like to leave in the, I've, I've just certainly enjoyed it and I'm going to rue the day that I have to, have to walk out the door and turn in my keys and my badge, but at the same time, I'll look, I'll look at it with fondness, of all the people. And that's what it's all been about. It's the people you meet and the people that you're trying to let the visitors that come to the park know that, you know, this park is, is special and that, and we're taking care of it. Thank you.

BB: Thank you.

[END OF INTERVIEW]